What is claimed is:

1. A semiconductor wafer comprising:

a support body made of a semiconductor material;

at least one thin die having a circuit formed thereon, the thin die having an outer perimeter defined by an open trench, the open trench separating the thin die from the support body; and

a plurality of tethers extending across the open trench and between the support body and the at least one thin die.

2. The semiconductor wafer of claim 1 wherein the support body has a first thickness and the at least one thin die has a second thickness, the second thickness being substantially less than the first thickness.

3. The semiconductor wafer of claim 1 wherein at least one of the plurality of tethers is substantially triangular in shape.

4. The semiconductor wafer of claim 3 wherein the at least one substantially triangular tether has a base and a tip, the base of the tether being attached to the support body of the wafer and the tip of the tether extending across the trench and attached to the at least one thin die.

5. The semiconductor wafer of claim 1 wherein at least one of the plurality of tethers has a portion that extends across the open trench, the portion extending across the open trench having its smallest width adjacent to the outer perimeter of the at least one thin die.

6. The semiconductor wafer of claim 1 wherein at least one of the plurality of tethers has a portion that extends across the open trench, the portion extending across the open trench having at least a portion of a groove.

7. The semiconductor wafer of claim 1 wherein at least one of the plurality of tethers has a portion that extends across the open trench, the portion extending across the open trench having at least a portion of a hole.

8. The semiconductor wafer of claim 1 wherein the circuit of the die is adapted for a pressure sensor.

9. The semiconductor wafer of claim 1 wherein the plurality of tethers are made of a polyimide material.

10. A wafer comprising:

a support body made of a semiconductor material;

at least one thin semiconductor die having a circuit formed thereon, the thin semiconductor die having an outer perimeter defined by an open trench, the open trench separating the thin semiconductor die from the support body; and

a means for attaching the outer perimeter of the at least one thin semiconductor die to the support body across the open trench.

11. The wafer of claim 10 wherein the means for attaching the outer perimeter of the at least one thin semiconductor die to the support body across the open trench includes a plurality of tethers.

12. The wafer of claim 11 wherein the tethers are made of a polyimide material.

13. A method of making a thin die on a wafer, the wafer having a support body, a topside and a backside, a circuit formed on the topside of the wafer, the method comprising the steps of:

forming a cavity on the backside of the wafer beneath the circuit that defines a first layer, the first layer includes the circuit;

forming a trench around the circuit on the topside of the wafer that defines an outer perimeter of the thin die;

forming a plurality of tethers that extend across the trench and between the wafer support body and the thin die; and

removing a portion of the first layer to define the bottom surface of the thin die.

14. The method of claim 13 wherein the step of forming the cavity on the backside of the wafer includes wet etching the backside of the wafer.

15. The method of claim 13 wherein the step of forming the trench on the topside of the wafer includes reactive ion etching to form the trench.

16. The method of claim 13 wherein the tethers are made of a polyimide material.

17. The method of claim 13 wherein the step of forming of the tethers includes patterning the tethers so they are substantially triangular.

18. The method of claim 13 wherein the step of removing the portion of the first layer includes reactive ion etching the first layer.

19. A method of forming tethers on a wafer to retain a thin die to a support body of the wafer, the wafer having a topside and a backside, the thin die positioned adjacent to the topside of the wafer, the method comprising the steps of:

forming a cavity on the backside of the wafer beneath the thin die that defines a first layer, the first layer includes the thin die;

forming a trench around the thin die on the topside of the wafer that defines an outer perimeter of the thin die and extends between the thin die and the support body;

patterning a polyimide material on the top surface of the wafer to define the tethers, the tethers extending across the trench and between the thin die and the support body; and

removing a portion of the first layer to expose the trench such that the tethers provide the attachment between the thin die and the support body.

20. The method of claim 19 wherein the step of patterning a polyimide material on the top surface of the wafer defines the tethers in a substantially triangular shape.

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